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**LASKER FOUNDATION ANNOUNCES 2018 LASKER AWARDS FOR
BASIC AND CLINICAL MEDICAL RESEARCH
AND SPECIAL ACHIEVEMENT**

C. David Allis and Michael Grunstein for discoveries elucidating how gene expression is influenced by chemical modification of histones—the proteins that package DNA within chromosomes

John B. Glen for the discovery and development of propofol, a chemical whose rapid action and freedom from residual effects have made it the most widely used agent for induction of anesthesia in patients throughout the world

Joan Argetsinger Steitz for four decades of leadership in biomedical science—exemplified by pioneering discoveries in RNA biology, generous mentorship of budding scientists, and vigorous and passionate support of women in science

NOTE: [Click here](#) for a comprehensive package of materials and resources.

(New York, September 11) The Albert and Mary Lasker Foundation today announced the winners of its 2018 Lasker Awards: **C. David Allis** from Rockefeller University and **Michael Grunstein** from the University of California, Los Angeles will receive the Albert Lasker Basic Medical Research Award; **John B. Glen**, formerly from AstraZeneca, will be honored with the Lasker-DeBakey Clinical Medical Research Award; and **Joan Argetsinger Steitz** from Yale University will receive the Lasker-Koshland Special Achievement Award in Medical Science. Widely regarded as America's top biomedical research prize, the Lasker Awards carry an honorarium of \$250,000 for each category. The awards will be presented Friday, September 21, in New York City.

The 2018 Albert Lasker Basic Medical Research Award

C. David Allis and Michael Grunstein for discoveries elucidating how gene expression is influenced by chemical modification of histones—the proteins that package DNA within chromosomes

Working with yeast in the 1980s, **Michael Grunstein** provided the first demonstration that DNA-packaging histone proteins influence gene expression. He and his team tracked this capability to one end of a histone. Then they showed that the presence or absence of a

particular chemical group—an acetyl—at certain spots within histones helps turns genes on and off.

C. David Allis discovered that an established gene co-activator can add acetyl groups to histones and that this modification is crucial for efficient gene expression. These findings sealed the connection between histone modifications and genetic regulation. Grunstein and Allis revealed a previously-hidden layer of gene control that contributes meaningfully to biological processes. From this foundation, researchers have discovered that errors in histone modifications contribute to several developmental disorders and various forms of cancer, providing new targets for potential therapies.

The 2018 Lasker~DeBakey Clinical Medical Research Award

John B. Glen for the discovery and development of propofol, a chemical whose rapid action and freedom from residual effects have made it the most widely used agent for induction of anesthesia in patients throughout the world

The ability to anesthetize patients for surgical procedures is one of the most important medical advances for human health and well-being, but side effects of early drugs complicated their use. In the 1970s, **John B. Glen** began testing drug candidates to find one that offered a rapid onset of anesthesia, amenability to continued delivery for long surgical procedures, and a fast, gentle recovery. Glen selected propofol, a small molecule drug with these desirable qualities.

After working through several setbacks and complications to formulate the drug for human use, Glen and his collaborators confirmed the safety and efficacy of the drug. Now the standard drug for intravenous induction of anesthesia, propofol has benefited millions of people. Propofol's quick and safe recovery profile means that patients can return home soon after their procedures, allowing for a more comfortable recovery and significantly reduced healthcare costs. Currently, propofol is administered over 60 million times per year in the U.S., and it remains unsurpassed in effectiveness since its introduction in 1989. The milky color of propofol has led anesthesiologists to refer to the drug as "milk of amnesia."

The 2018 Lasker~Koshland Special Achievement Award in Medical Science

Joan Argetsinger Steitz for four decades of leadership in biomedical science—exemplified by pioneering discoveries in RNA biology, generous mentorship of budding scientists, and vigorous and passionate support of women in science

Over the last four decades, **Joan Argetsinger Steitz** pioneered the field of RNA biology and became widely recognized as a passionate advocate for greater inclusion of women in the scientific community. In her research, Steitz discovered that small nuclear ribonucleoproteins (snRNPs) play a central role in splicing, a key step in gene expression. During this process, cells create the RNA templates used to manufacture proteins. A complicated molecular machine with a core composed of snRNPs cuts out internal sections of precursor messenger RNAs and reconnects the ends to create the final messages.

While carrying out her research, Steitz has dedicated herself to teaching and mentoring young scientists and advocating for women in science. For ten years, Steitz led the Jane

Coffin Childs Fund, which grants postdoctoral fellowships to early career researchers. In 2005, she co-authored the influential National Academy of Sciences report, “Beyond Bias and Barriers.” Throughout her career, she has tirelessly campaigned for the full inclusion and support of all members of the scientific community and inspired countless women in STEM careers.

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About the Lasker Foundation: The Lasker Foundation seeks to increase support for biomedical research by celebrating the power of biomedical science to save and improve human lives. Through its internationally renowned Lasker Awards, educational initiatives, and public advocacy, the Foundation recognizes the most important achievements in science and public service, supports and encourages the scientific leaders of tomorrow, and raises awareness of the ever-present need for research funding. Established in 1942 by Albert and Mary Lasker, the Foundation is committed to inspiring robust and sustained support for biomedical research, fueled by Mary Lasker’s call to action: “If you think research is expensive, try disease!”

About the Lasker Awards: For 73 years, the Lasker Awards, America’s most prestigious biomedical research awards, have recognized the contributions of leaders who made major advances in the understanding, diagnosis, treatment, cure or prevention of human disease. Recipients of the Lasker Medical Research Awards are selected by a distinguished international jury chaired by Joseph L. Goldstein, recipient of the 1985 Lasker Award for Basic Medical Research and the Nobel Prize in Physiology or Medicine. Eighty-seven Lasker laureates have received the Nobel Prize, including 40 in the last three decades. More details on the Lasker Award recipients, the full citations for each award category, video interviews and photos of the awardees, and additional information on the Foundation are available at www.laskerfoundation.org. Follow the Awards on [Facebook](#) and [Twitter](#).

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